

REMARKS

Claims 1-24 remain in this application. Claims 1, 9, and 17 have been amended. Reconsideration and review of the application is respectfully requested.

In the Office Action, the Examiner objected to the drawings for an informality contained therein. A proposed amended Fig. 6 is enclosed. The proposed amended Fig. 6 includes "the flows from decision state 650" as required by the Examiner. Formal drawings will be submitted upon allowance of the application.

Before addressing the merits of the rejection based on prior art, a brief description of the present application is provided. The present invention is directed to a system and method for caching active computing environments. The invention provides a compute capsule that represents an active computing environment. The compute capsule creates a set of boundaries or interconnections that define what is trusted and tied together in the capsule. The capsule may be halted and moved to a different machine having a different operating system. Since a trust domain is defined when the capsule is created, the present invention does not need an object broker/management system as is required by prior art methods and systems (e.g., Schrimpf). That is, since the operating system (or a kernel of the operating system) knows in advance what is bound or interconnected as part of the set of cooperating services/system environment (compute capsule), the operating system can focus on transferring the entire contents of the capsule (i.e., all of its separately executing services and environment with their trusted interconnections), instead of worrying about reestablishing those connections in a trusted manner.

In addition, when the capsule is moved, the system and method of the invention caches the capsule on the new machine and re-starts the capsule using the cached information when a user of the capsule desires to begin operating the new machine. The invention caches both the state of the capsule and the interconnected processes within the capsule. This, in turn, provides the invention with the ability to move the

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capsule to a new machine and restore the capsule to the running state as if there had been no disruption. Claims 1, 9, and 17 have been amended to better clarify the subject matter being claimed.

The Examiner rejected Claims 1-24 under 35 U.S.C. §102 as being anticipated by Schrimpf. The Applicant respectfully traverses these rejections.

Schrimpf is directed to a network architecture designed to utilize an object broker/management system. The object broker/management system is used to reestablish connections of processes and system environment when the processes and the system have been moved from one machine to another. Thus, one of the major differences between Schrimpf and the present invention is the use of the capsule mechanism of the present invention as a way to allow most traditional operating system (e.g., Unix) mechanisms to continue to function without the overhead of the object broker/management system. Again, as described above, the compute capsule of the present invention limits the scope of what has to be abstracted to achieve a freezable and migratable execution environment. To put it another way, the present invention, in a nut shell, uses a capsule for limiting the work of establishing trust by identifying the trust boundaries or interconnections in advance rather than after the fact, as is taught by the object broker/management system of Schrimpf.

Specifically, Schrimpf does not disclose or suggest a method of caching an active computing environment comprising:

encapsulating a plurality of interconnected processes into a compute capsule for representing said active computing environment;

encapsulating a system environment interconnected with said processes into said capsule;

obtaining said processes in said capsule;

determining a state of said capsule; and

caching said processes and said state.

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(with emphasis in bold added) as recited in amended independent Claim 1. Similar limitations are present in independent Claim 17 that are not suggested or disclosed by Schrimpf.

In addition, amended Claim 9 should also be allowable for its recitations of a cache for an active computing environment comprising:

a compute capsule having a plurality of interconnected processes,
said capsule representing said active computing environment;

a system environment encapsulated within said capsule, said
system environment interconnected with said processes;

a state interface configured to determine a state of said processes
wherein said state and said processes comprise said active computing
environment; and

a cache configured to store said active computing environment.

Accordingly, the rejections of Claims 1, 9, and 17 should now be withdrawn. In addition, Claims 2-8 depend (directly or indirectly) on Claim 1, Claims 10-16 depend on Claim 9, and Claims 18-24 depend on Claim 17. The dependent claims should be allowable for at least the reason that they depend on an allowable base claim (i.e., they each depend on either Claims 1, 9, or 17).

In view of the foregoing, the Applicant respectfully submits that Claims 1-24 are in condition for allowance. Reconsideration and withdrawal of the rejections is respectfully requested, and a timely Notice of Allowability is solicited. If it would be helpful to placing this application in condition for allowance, the Applicant encourages the Examiner to contact the undersigned counsel and conduct a telephonic interview.

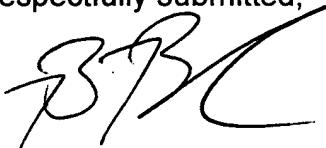
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To the extent necessary, Applicant petitions the Commissioner for a one-month extension of time, extending to March 29, 2004 (the first business day following March 28, 2004), the period for response to the Office Action dated November 28, 2003. The Commissioner is authorized to charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-0639.

Respectfully submitted,



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Enclosure: Proposed Amended Drawing (Fig. 6)